

Earth Incorporated: Centralization and Variegation in the Global Company Network

December 22 2016

Daniel Haberly*[^] and Dariusz Wójcik**

Abstract:

Over the past 20 years, a widening gulf has appeared between the increasingly internationalized financing arrangements of the world's leading corporations, and the persistence of nationally compartmentalized approaches to the study of corporate control. In lieu of direct empirical evidence on corporate control at the global level, the most widespread assumption is that the globalization of ownership has taken the form of an expansion of arms-length, market-based arrangements traditionally prevailing in the Anglo-American economies. Here, however, we challenge this assumption, both empirically and conceptually. Empirically, we show that three quarters of the world's 205 largest firms by sales are linked to a single global company network of concentrated (5%) ownership ties. This network has a hierarchically centralized organization, with a dominant "global network core" of US fund managers ringed by a more geographically diverse "state capitalist periphery." Conceptually, we argue that this architecture can be broadly explained through a Polanyian "variegated capitalist" model of contradictory market institutionalization, with the formation of the global company network actually a counterintuitive product of global financial marketization. In order to understand this process of network formation, however, it is necessary to extend Polanyi's model of a double movement mediated through political interventions in the market, to incorporate Veblenian processes of evolutionary institutional change mediated through the market.

Keywords: Global Company Network, Corporate Ownership Internationalization, Asset Management Concentration, Sovereign Wealth Funds, State Capitalism, Financialization, Variegated Capitalism, Evolutionary Economic Geography

JEL Codes: F65, G23, G32, G34, G38, P16

* University of Sussex, School of Global Studies, Department of Geography

** University of Oxford, School of Geography and the Environment and St. Peter's College

[^] Corresponding author:

Daniel Haberly

Arts C, University of Sussex

Falmer, Brighton, BN1 9SJ

d.haberly@sussex.ac.uk

This is an Accepted Manuscript of an article published by Taylor & Francis in *Economic Geography* on 22/12/2016, available online: <http://dx.doi.org/10.1080/00130095.2016.1267561>.

1. Introduction: Opening the Black Box of Global Corporate Control

Over the past 20 years, a widening gulf has appeared between the increasingly internationalized financing arrangements of the world's leading corporations, and the persistence of nationally compartmentalized approaches to the study of corporate control. In what remains the most influential and far-reaching study of corporate ownership, La Porta et al. (1999), provided a breakdown of ownership patterns in 27 high and middle income economies. This confirmed the existence of a long-suspected divide between dispersed control in "Anglo-American" economies, and more concentrated control in most other economies. However, it did not shed any light on the international integration of ownership across these economies. After the turn of the millennium, the increasingly inescapable reality of financial internationalization forced an adjustment of this approach. However, rather than an examination of international processes of change in their own right, the result has mostly been the production of national case studies of corporate ownership internationalization, with a rather narrow conceptual and empirical focus. This focus has nearly always been the breakdown (or stability) of "insider" control in "non-Anglo American" economies (however defined), and the intrusion (or exclusion) of "outsider" Anglo-American actors and practices purportedly organized around arm's-length, market-oriented lines (Aoki et al. 2007; Clark and Wójcik 2007; Hall and Soskice 2001; Hoepner and Krempel 2004; Schmidt 2003; Stulz 2005; Walter and Howie 2011).

As noted by Peck and Theodore (2007), these studies are not only rather unsatisfactory in their continued adherence to conceptual and methodological nationalism, but in their tendency to focus on only the recipients of Anglo-American financial and institutional diffusion. Meanwhile, the Anglo American economies at the heart of global finance are often treated as a black box filled with caricatured "liberal" and or "market-based" institutions, which are presumed to act as a default template for global restructuring. As such, mostly missing in studies of ownership internationalization is a problematization of the dynamic, heterogeneous, and contested nature of historical and contemporary corporate ownership and governance in the Anglo-American economies themselves. In the US alone these arrangements have been argued to run the gamut from an "organized capitalist" company network (Lash and Urry 1987); to pure managerialism, with minimal shareholder influence (Berle and Means 1999); to the emergence of de facto socialism via the growing influence of employee pension funds (Drucker 1976); to a post-1980s Wall Street oligarchy, whose power derives from the vortex of speculative securities markets (Wray 2011); to an ascendant "fiduciary capitalism" with increasingly centralized control by massive asset managers (Hawley and Williams 2000); to the outright death of the publicly-traded corporation, and its replacement with shadowy, private organizational forms (Economist 2012: 2013a). Likewise excluded in most studies of corporate ownership internationalization is a treatment of the influence of non-traditional, and in many cases non-western actors such as sovereign wealth funds, which, have been documented to pursue more diverse strategies and objectives than conventional institutional investors (Clark et al. 2013; Haberly 2014).

Within the past few years, a handful of studies have begun to address these gaps in existing research, by directly examining the control of the world economy at the global scale.

Peetz and Murray (2012) compile shareholder data on the world's largest 250 industrial firms by turnover, and largest 50 financial firms by assets in 2009. Among private investors, they find that a single American fund manager, BlackRock, controls a staggering 6% of sample firm assets. They also find a substantial presence of state capital in global ownership, with the British government the second most influential investor (by portfolio firm assets) after BlackRock, due to its recapitalization of banks in the global financial crisis, followed by the government of China. Meanwhile, in a complementary study, Vitali et al. (2011) conducted an exhaustive shareholder structure analysis of 43,000 multinational firms worldwide. In contrast to the focus of Peetz and Murray (2012) on aggregate asset totals, this focused on the relational structure of global corporate control. The results were equally striking. Rather than a juxtaposition of decentralized global markets and residual national networks, they indicated that worldwide corporate ownership has become organized into a single centralized network, to which 75% of sample firms, accounting for more than 94% of sample turnover, are connected. This network has a "strongly connected core" of approximately 1,000, primarily financial firms, which exercise control over both one another and a much larger periphery of mostly non-financial firms.

The results of these studies are tantalizing, suggesting that the growing concentration of global wealth (Henry 2012; Oxfam 2014; Piketty 2014; Zucman 2015) may be mirrored by a growing concentration of corporate control. However, they in many respects raise more questions than they answer. From an empirical standpoint, their sensitivity to very fine connections makes it difficult to distinguish concentrated long-term, from arm's-length market-based relationships, and obscures specific structures within a cloud of enormous complexity. Moreover, they also raise unanswered conceptual questions. The analysis of Vitali et al. (2011) is entirely empirical. Meanwhile, Peetz and Murray (2012) theorize global ownership evolution in terms of a general tendency towards "financialization." This is problematic, as it does not differentiate between the qualitative diversity of finance-dominated economic systems. Indeed, the apparent tendency towards shareholder concentration—implying the prevalence of inherently illiquid, multibillion-dollar share blocks, which often require years to dispose of—sits uneasily with the conventional understanding of "financialization" as entailing a tendency towards speculative, market churn. Similar questions are raised by the apparently growing importance of state capital in global ownership.

Here we seek to build upon these studies by answering two basic questions. Firstly, what does the global company network look like, in terms of its overall structure, and key actors and relationships? In this respect, in line with previous surveys of national corporate ownership (e.g. La Porta et al. 1999), but unlike previous studies of global ownership, we limit ourselves to the examination of concentrated shareholdings, which imply some level of long-term commitment. Secondly, in light of the diverse and often contradictory theories of national-level corporate ownership evolution, how, and to what extent can the emergence of a global company network be parsimoniously theorized?

The remainder of the paper is divided into five sections. In section 2, we examine the conceptual basis of global company network formation. Drawing on Peck and Theodore's (2007) "variegated capitalist" theorization of global capitalist change in terms of a broadly Polanyian model of contradictory market institutionalization, we argue that the emergence of the global company network can be understood as a counterintuitive product of global financial marketization. In order to understand this emergence, however, it is necessary to extend Polanyi's model of the "double movement" to incorporate Veblenian processes of evolutionary institutional change. By recasting elements of agency theory and the efficient market hypothesis in terms of this hybrid "Darwinian Polanyian" conceptualization of the double-movement, we show how the global company network has emerged out of a "Veblenian" erosion of liquidity and efficiency in the core markets of global finance, combined with the "Polanyian" attempts of states to simultaneously engage with and defend themselves from these markets. As we confirm in sections 5-7, the result has been the emergence of a "global network core" centered on a handful of enormous money managers in the US and Britain, ringed by a more geographically diverse "state capitalist periphery." The emergence of this global company network, we argue, has relieved some of the most prominent tensions in global financial marketization; however, it has also injected new, and in all likelihood more serious stresses into it.

2. The Polanyian and Veblenian Double Movements

Understanding the ongoing process of global company network formation, we argue, requires synthesizing what can be described as the Veblenian and Polanyian institutionalist traditions. In both approaches, institutions are broadly conceptualized in relation to the gulf between the abstraction of *homo economicus* and the reality of human social behavior. However, the role of institutions in relation to this gulf is viewed from different directions. In his writings, Veblen never took the idea of the "self-regulating" market, populated by atomistic rational actors, particularly seriously as a driver of real human social organization. Rather, his primary concern was for how habitually reproduced institutional frameworks were shaped over time by context-dependent, pseudo-Darwinian selection pressures (Hodgson 2008; Veblen 1898). Something vaguely resembling *homo economicus*, had, according to Veblen, emerged organically in the "pecuniary culture" governing the behavior of financiers and high-level corporate managers. However, this culture coexisted uneasily with the other components of a complex and diverse socio-economic matrix. Indeed, in a theory influencing later work on corporate governance (e.g. Berle and Means 1999; Jensen and Meckling 1976), Veblen argued that an increasingly elaborate institutional apparatus had developed to bridge the widening gap between the pecuniary principles of the "absentee owners" of modern corporations, and the broader organization of modern industrial society around the "machine process" (Veblen 1904; 1923).

To a large extent, Veblen's theory of absentee ownership is one in which institutions evolve to protect the market, in the form of pecuniary business principles, from the broader developmental logic of industrial society. Polanyi, in contrast, turned this model of market

institutionalization on its head. Although, equally skeptical of the applicability of the “self-regulating market” to human society, Polanyi (2001) argued that political attempts to impose this ideal nevertheless had dramatic societal impacts, which he described in terms of the operation of a “double movement.” In this dynamic, the advance of the “utopian project” of 19th century liberalism was paradoxically sustained by a simultaneous institutional “countermovement,” wherein society protected itself from the disruptive influence of the market. Rather than a coherent project, this countermovement developed as an accumulation of partial fixes to what were perceived to be disconnected social, economic, and environmental problems. According to Polanyi, the growing weight, and increasingly nationalistic character of the very mechanisms (e.g. imperialism, protectionism, trade unionism, universal suffrage, central banking) that rendered marketization politically sustainable was “in the last analysis...incompatible with the self-regulation of the market, and thus the market itself” (Polanyi 2001, p. 136). The building tension of this paradox would eventually strain the institutional framework of 19th century civilization to the breaking point, resulting in its sudden and violent implosion in the early 20th century.

There is a strong argument to be made that these two approaches to the conceptualization of market institutionalization, in both their original form and contemporary economic geographic conceptual legacy, are more complementary than contradictory. While the focus of Polanyi is the role of institutions in protecting society from the market, the institutional supports of markets themselves are more extensively dealt by Veblen. Furthermore, whereas Polanyi’s focus is macroscopic ideology and policy, Veblen problematizes emergent evolutionary processes mediated at the microscopic level, particularly the firm. Here we build-on a “Darwinian Polanyian” approach (Haberly 2014) to the economic geographic synthesis of these two institutionalist traditions, which seeks to realize their complementarities. In the Polanyian tradition, this draws upon the “variegated capitalist” problematization of the contradictory and geographically uneven institutionalization of the political project of neoliberal globalization (Brenner et al. 2010; Dixon 2011; Lim 2010; Peck and Theodore 2007). Meanwhile, in the Veblenian tradition, it draws upon a Generalized Darwinian approach to the analysis of bottom-up emergent institutional evolution (Essletzbichler and Rigby 2007; Hodgson 2008). Putting these together creates a framework encompassing both political institutional interventions in the market, and institutional selection processes mediated through the market (Haberly 2014). Beyond the level of theorization, this entails a hybrid macro-micro epistemology, which combines attention to top-down policy developments with a population dynamics approach to investigating bottom-up actor-level trends.

Most importantly, for the present discussion, Haberly (2014) identifies a potential for market-mediated institutional selection to generate “double-movement”-type patterns of market expansion and containment. However, these are analyzed in terms of their ability to simulate politically-mediated Polanyian double movements.¹ In contrast, here we theorize market-

¹ Specifically the decay and re-formation of “patient capital” sheltering German firms and workers from market shocks and investor demands.

mediated double-movement dynamics on its own terms, by re-grounding it in Generalized Darwinism's Veblenian institutionalist roots. Our key argument is that a Generalized Darwinian approach to the analysis of financial evolution is not simply complementary to a Polanyian approach, but also—if conducted in the original spirit of Veblen's *homo economicus* critique—implies a mirror-image logic of contradictory market institutionalization. We dub this mirror-image logic the “Veblenian double movement.” In the Polanyian double-movement, the political impulse towards marketization ultimately buckles under the weight of the institutions which protect society from the market. In contrast, in the Veblenian double-movement, a predominantly Darwinian evolutionary impulse towards marketization buckles under the weight of the institutions which protect the market from society—with “society” understood broadly to refer to the entire array of actually-existing human limitations and idiosyncrasies. As shown in figure 1, we argue that the most important bottom-up marketizing impulse, in the context of finance, is a “drive to liquidity and efficiency” powered by the investor pursuit of portfolio flexibility and arbitrage opportunities. Meanwhile, the key market-protecting “countermovement” sustaining this impulse is the establishment of “monitoring and control systems” to manage the “informational and agency dilemmas” intrinsic to financial markets.



Figure 1. Veblenian and Polanyian double-movements in financial marketization

In contemporary finance, we argue that this Veblenian double-movement conditions many (although not all) of the tendencies typically described as “financialization.” Meanwhile, the tendencies towards neoliberalization and globalization are conditioned by more classically Polanyian double movements. These are driven by the impulses of “market discipline imposition” and “international opportunity pursuit” on the one hand, and the pressures these create for the institutionalized protection of social “security” and national “sovereignty” on the other (figure 1). Importantly, these three double-movements are not independent from one another. Rather, they should be seen as sub-logics within an interconnected web of market institutionalization processes, which are conditioned by a common fundamental conflict between idealized market-rational and actually-existing human behavior. The impulses towards economic internationalization and liberalization are sometimes separated (e.g. in mercantilism); however, they are more often expressions of an overarching laissez faire ideology. As noted by Polanyi (2001 p. 213), moreover, “internal and external, social and national protectionism [tend]

to fuse.” Finally, as we note in the conclusion (and as explored in Haberly 2014), Veblenian and Polanyian institutionalization processes may directly contradict or reinforce one another.

A full exploration of the myriad of such interactions possible is beyond the scope of this paper. Rather, the following two sections advance a model of contemporary global network formation which focuses on the most relevant core processes. In section 3, we examine the Veblenian double movement in figure 1, and show how it is producing a “global network core” of Anglo-American fund managers who supersede, as much as operate within, capital markets. Next, in section 4, we show how the two more classically Polanyian double-movements in figure 1 are, in conjunction with one another, producing a more geographically diverse “state capitalist periphery” surrounding this global network core.

3. From Capital Markets to Company Networks

Contrary to Peetz and Murray’s (2014) interpretation of global ownership concentration in terms of the advance of financialization, we argue that the most important motor of global company network formation is a structural exhaustion of one of its core tendencies—namely the marketizing “drive to liquidity and efficiency” (figure 1). As noted by Epstein (2005), financialization has become an umbrella term for multiple phenomena. At the macroeconomic level, it has been described as an ascendance of “rentier” interests and or “FIRE” sectors (Krippner 2005). Meanwhile, from an institutional standpoint, it typically refers to short-term shareholder value-maximizing corporate governance, the ascendance of arm’s-length capital markets over relationally tight-knit bank-based financial systems, and the “explosion of financial trading and the proliferation of new instruments” (Epstein 2005; Krippner 2005, p. 175).

The argument here is that not all of these tendencies are intrinsically connected. Rather, contemporary “financialization” is a juxtaposition of at least two impulses. These first is a risk-taking/debt-driven escalation of bubble economy tendencies associated with the neoliberal dialectic of “discipline and security” discussed in section 4. Meanwhile, the second—which we dub the “drive to liquidity and efficiency”—entails an (all-else-being-equal risk neutral) movement of institutional arrangements towards increasing strategic and relational short-termism, flexibility, and arbitrage. Broadly speaking, this acts on the position of institutions in what varieties of capitalism theorists (Hall and Soskice 2001) have described as the “coordinated-liberal” spectrum (which examples such as the Keiretsu-led 1980s Japanese bubble economy suggest has little bearing on financialization in the first sense above). However, it constitutes a different dynamic of movement along this spectrum than described by varieties theorists.

Within the varieties literature, the model of institutional change closest to the “drive to liquidity and efficiency” is that of spontaneous marketization through self-interested actor “defection” (Hall and Thelen 2009) from fixed commitments and relationships. Indeed, our model is congruent with this interpretation of the breakdown of company networks such as “Deutschland AG” (Hoepner and Krempel 2004). However, it also describes a more comprehensive tendency towards financial market self-organization. Most importantly, whereas

“defection” views marketization in negative terms, as an erosion of non-market institutions, we view it (following Clark and Wójcik 2007) in positive terms as a process of institution-building, entailing the development of complex strategies and structures. Importantly, this conceptual inversion creates a basis for theorizing open-ended and ongoing market development in “already-liberal” (e.g. Anglo-American) financial institutional systems.² However, it also implies that marketization is institutionally costly, and thus tension-ridden on its own pecuniary terms. The result, we argue, is that both networked relationship-based and arm’s-length market-based financial institutional arrangements are endogenously unstable. Geographically, this works against the emergence of pure “varieties of capitalism,” rather promoting mixed institutional ecologies.³ Temporally, this creates a potential for both emergent evolutionary company network decay through the direct action of the “drive to liquidity and efficiency,” and emergent evolutionary network formation as a reflexive product of this drive’s contradictions.

These evolutionary tendencies can be understood as a dialectical tug-of-war. On the one hand, all else being equal,⁴ most investors have a preference for liquidity, which can be defined as the ease of exit from positions. For risk-averse investors, this is a strategy of risk reduction⁵; meanwhile, for risk-seeking speculative investors, it is a strategy of opportunity-cost reduction, enabling the flexible pursuit of opportunities for arbitrage. By facilitating such arbitrage, and thus allowing for the discovery of prices, liquidity in turn becomes the precondition for market efficiency; moreover, by creating confidence in the ability of assets to be priced, efficiency in turn becomes the precondition for liquidity (Clark and Wójcik 2007).

Meanwhile, constraining this “drive to liquidity and efficiency” are the limitations of actually-existing human honesty and knowledge, which must be overcome through the creation of costly “monitoring and control systems” (figure 1). Specifically, the more fragmented and footloose investor holdings become, the greater the difficulty that is entailed in both supervising the routine management of portfolio firms (i.e. the agency dilemma), and in constantly identifying new opportunities for profitable investment (i.e. the informational dilemma). To date, these two problems have primarily been theorized independently, the former by agency theory, and the latter by a number of variants of the efficient market hypothesis. However, both theories are ultimately informed by a similar perspective on the contradictions of market institutionalization, within which the institutional cost of marketization is often seen to outstrip its benefits. Given this convergent conceptual outlook, the practical entanglement of efficiency and liquidity, and the high degree of overlap between the monitoring and control institutions (e.g. securities regulations, investment banks, law firms, asset managers, etc.) created to govern both the informational and agency dilemmas, we argue that an evolutionary hybridization of agency theory and efficient market hypothesis work is in order.

² E.g. ever-increasing securities trading volume, frequency, and complexity, ever-more-impatient investor demands for corporate share price and cash remittance maximization, etc.

³ See Clark and Wójcik (2007) for a discussion of this heterogeneity.

⁴ The “all else being equal” is crucial here, implying a potential willingness to sacrifice liquidity to increase returns.

⁵ In this respect we are referring to a long-term preference for liquid assets, in contrast to the cyclical flight into cash described by Keynesian theory.

To date, the evolution of corporate shareholder structure has primarily been theorized from the standpoint of agency theory (Jensen and Meckling 1976; La Porta et al. 1999; Schliefer and Vishny 1997). Agency theory can be described, more or less, as a reformulation of Veblen's dilemma of "absentee ownership"—or as Berle and Means (1999) described it, the "separation of ownership and control"—from the standpoint of shareholders. According to agency theorists, the "state of nature" of corporate ownership is characterized by incestuous, illiquid relationships between managers and concentrated long-term shareholders. It is only through the public and private construction of institutions of minority investor protection that more fragmented and liquid ownership structures can emerge. Moreover, as emphasized by Schliefer and Vishny (1997), these institutions tend to be inherently imperfect and unstable, with more dispersed control arrangements having a constant tendency to collapse into illiquid, concentrated corporate ownership; either constituted permanently on a long-term relationship basis, or temporarily via activist proxy fights or takeovers in the "market for control." Historically, this model has been used to explain the emergence of the early 20th century American financial-industrial company network, centered on JP Morgan's "Money Trust," as a counterintuitive byproduct of securities market development (Coffee 2001; De Long 1992). More recently, Haberly (2014) argues that it partially explains a post-2000 surge in family control of German industrial firms.

We argue that a reversion to illiquid, long-term relationship investing is currently occurring within the Anglo-American heart of global securities markets. However, this is not being primarily driven, at present, by the pressures of the agency dilemma. Rather, the primary motor of change is located in the "informational dilemma" of securities market efficiency, which has come to drive changes in corporate governance via its impacts on market liquidity. What we dub the informational dilemma has been extensively theorized in debates surrounding the so-called efficient market hypothesis of market trading structure (Malkiel 2003). As described by Eugene Fama (1995), the basic conundrum of market efficiency—which arguably transcends the rational expectations-behaviorism debate (see Lo 2004)⁶—is the fact that efficiency is the product of costly investor efforts to identify and exploit arbitrage opportunities, yet eliminates the arbitrage opportunities that allow investors to underwrite these costs. Grossman and Stiglitz (1980), in an influential analysis of this trade-off, describe the resulting "optimal" efficiency level in equilibrium terms. However, in an institutional evolutionary revision of the efficient market hypothesis, Lo (2004) notes that investors have no way of telling, except after the fact, whether strategies are optimal in a given context. Consequently, rather than tending towards equilibrium, market structures will tend to evolve in an unstable Darwinian manner, in which they wander between various states on the efficiency-arbitrage-opportunity spectrum (Lo 2004).

Since the 1970s, proponents of the so-called "strong" version of the efficient market hypothesis have consistently argued that expenditures on price-discovery, by US investors, are far in excess of what is justified by the available arbitrage opportunities. Consequently, the most

⁶ A more modest restatement of the efficient market hypothesis, which sidesteps this debate, is the idea that any successful stock-picking strategy will—to the extent that it becomes popular—cease to be successful. Individual attempts to beat the market will thus tend to escalate, collectively, into costly and self-defeating informational arm-races.

rational investment approach is to free-ride on the price-discovery efforts of others through a passive, index-based strategy (Malkiel 2003; 2005). Although these arguments were mostly ignored until recently, the experience of the financial crisis, combined with a growing body of research, has led to a growing disillusionment with ever-higher-cost speculative investment strategies (e.g. high frequency trading; Philips 2013), which are increasingly seen to accomplish little other than lining the pockets of fund managers and other intermediaries (Coe et al. 2014; Dixon and Monk 2014; Malkiel 2005). The result of this disillusionment has been an unprecedented growth of passive index-based investment strategies aimed at minimizing informational and transactional overheads (Economist 2014; Malkiel 2013).

We argue that this Anglo-American turn from speculative to passive investment is the single-most important factor driving contemporary global company network formation. By refusing to underwrite the costs of price discovery, passive funds implicitly reduce market efficiency. However, their growth has also had knock-on effects on liquidity, and thus corporate governance. In comparison to actively managed funds, which must avoid becoming so large that they move the market (i.e. “asset bloat,” Currier 2007), passive funds have much greater economies of scale. Having underwritten the fixed costs associated with the construction of ICT platforms, and the hiring of regulatory compliance staff, AUM can be expanded almost indefinitely at very little marginal cost (Economist 2014; MacDonald-Korth et al. 2015; Malkiel 2013). Given that the primary rationale for passive investing is the minimization of overhead costs, this has encouraged the emergence of a new class of supermassive fund managers such as BlackRock, whose \$4.7 trillion AUM as of 2015 is larger than the GDP of Germany, and only slightly smaller than the GDP of Japan (Economist 2013b; 2014; BlackRock 2015). Beyond the portfolio illiquidity resulting from the sheer size of these managers—which are essentially forced to hold concentrated long-term positions in all, or nearly all major companies—the use of index-based strategies directly precludes discretionary exits from underperforming firms, rather requiring an indefinite buy-and-hold orientation. Consequently, as noted by Hawley and Williams (2000) of index-based funds generally, they have been more or less forced into “voice”-based corporate governance activism as the only avenue to uphold fiduciary duty (Appel et al. 2016). According to BlackRock’s global head of corporate governance: “There was a time when investors would give companies the benefit of the doubt, but there is much less tolerance now....we are big investors and can’t simply sell the shares, even if we wanted to” (Armitstead 2012). Similarly, the second-largest passive manager, \$3.1 trillion AUM Vanguard, has pushed firms to create institutional mechanisms for ongoing engagement with “significant, long-term investors” (McNabb, 2015). Noting that “we are 5% of most companies” (Grind and Lubin 2015), its CEO recently said of these that:

“We’re going to hold your stock when you hit your quarterly earnings target. And we’ll hold it when you don’t... We’re going to hold your stock when everyone else is piling in. And when everyone else is running for the exits. That is precisely why we care so much about good governance.” (William McNabb III, quoted in Appel et al. 2016, p. 111).

4. Neoliberalism, Globalization and the Resurgence of State Capitalism

In the context of global financial market integration, this dialectical overshooting and retrenchment of monitoring and control system costs—to the extent that its latter phase produces a shift towards stable, voice-based shareholder relationships—constitutes a potentially powerful motor for global company network formation. However, this dynamic is likely to be limited to the more highly developed core regions of the global financial system (e.g. the US and parts of Western Europe), where markets are both relatively liquid and efficient, and highly integrated with one another. In contrast, in the more peripheral and underdeveloped reaches of the global financial system (e.g. with poor investor protection), the drive to liquidity and efficiency is unlikely to develop enough initial momentum for participation in this particular global network formation process. This does not mean that these peripheral regions have been cut-off from global company network formation. However, their network integration, we argue, is primarily being driven by the intersection of two other, more classically Polanyian double movements within financial marketization. These are centered on the dilemmas of security and sovereignty (figure 1) associated with the advance of neoliberalization and globalization.

Whereas the evolutionary drive to liquidity and efficiency in the Anglo-American world appears to have become exhausted under the weight of its own contradictions, the political impulses towards neoliberalization and globalization continue to show substantial international momentum (see Peck et al. 2012). As predicted by Polanyi, however, their advance has been accompanied by a society-protecting institutional countermovement whose structure is in many respects antithetical to the logic of marketization. Most important, from the standpoint of global company network formation, is the dramatic rise of “state capitalist” institutional forms, not as a reaction to neoliberalism and globalization, but rather as a means for sustaining them.

For the present analysis, we employ Peck et al.’s (2012) understanding of neoliberalism as “market-disciplinary regulatory restructuring.” Crucially, it is this “disciplinary” impulse that, in Polanyi’s model, gives the liberal project its chimerical character, due to the political impossibility of allowing society to be “transformed into a heap of ruins” by the “sanction of hunger” (Polanyi 2001, p. 204 and 123). As noted by Polanyi, this paradox (“dilemma of security” in figure 1) is particularly stark with respect to the financial and monetary system, due to its critical transactional role within the economy. The result is an inevitable coupling of market disciplinary reforms (e.g. the Gold Standard) to the growth of financial backstopping institutions (“provision of security” in figure 1), which, in both the classical liberal and neoliberal eras, has most importantly taken the form of an expansion of the sovereign balance sheet (via central banking, bailouts, etc.). In the neoliberal era, the most important financial manifestation of the market disciplinary impulse has been a minimalist regulatory approach, founded on the faith that actors will behave responsibly out of a fear of losses from risky behavior. As noted by Minsky and Ferri (1992) this approach is flawed due not only to the inability of actors to evaluate risks, but also their knowledge that the state will inevitably be, as emphasized by Polanyi, forced to absorb risks in a crisis. The result has been an expansion of

“big government” finance under the auspices of small-government ideology, in an escalating cycle of crises and crisis-interventions (Crotty 2009; Konigs 2015).

This state financial expansion is remarkably pervasive internationally. However, it exhibits substantial detailed international variations, which we argue are largely explained by its interaction with the “dilemma of sovereignty” (figure 1) created by globalization. The discussion of “globalization” in this context is complex, given that elements of it (like “financialization”) can be subsumed within the neoliberal market disciplinary project. However, to the extent that globalization is understood broadly as international economic integration, it is also conditioned by a second double-movement. This is driven by the profit/growth-seeking impulse to pursue cross-border trade and investment opportunities, and the reciprocal pressure this creates to establish “sovereignty instruments” (figure 1) to protect economic policy autonomy from foreign intrusions and dependency (see Rodrik 2011). Crucially, this is not simply a question of market-society relations, but also the position of states within international power relations. In the major reserve-currency issuing economies, the moral hazard surrounding the expansion of central bank balance sheets, and routine bailouts of key financial institutions, is essentially a domestic political issue. For developing and or small economies, though—which must conduct international operations in foreign currencies which their central banks cannot backstop—a reactive cycle of crisis and bailout, driven largely by overseas regulatory failures, poses an existential threat to national independence. With withdrawal from global financial markets mostly impossible—at least to the extent countries wish to be integrated into global trade and direct investment flows—the result has been a pattern of “big government” financial development which is both more calculated, and more internationally extroverted, than that in the core economies (Aizenmann 2007; Clark and Monk 2010).

The most important aspect of this has been a dramatic relegitimization of state ownership. Above all, this is a strategy of sovereign self-insurance, with foreign currency reserve assets offsetting balance of payments risk, and state ownership of key banks preemptively guaranteeing domestic financial liquidity and solvency. This behavior has been particularly prevalent among Asian states seeking to avoid a repeat of the 1997/1998 financial crisis, and oil and gas exporters seeking to avoid a repeat of the early 1980s debt and commodity price crises (Aizenmann 2007; Clark et al. 2013). Importantly, however, the contemporary state capitalist defense of social security and national sovereignty is not typically an outright attack on market-disciplinary regulatory restructuring or global economic integration. Rather, it seeks to achieve a balanced synthesis of these competing impulses.

Somewhat ironically, state ownership is one of the most globalization and liberalization-friendly interventionist instruments, insofar as it neither directly obstructs the operation of market forces, nor is limited by the confines of state territoriality (Haberly 2011). Particularly outstanding, in this respect, are sovereign wealth funds (SWFs), which are typically created to harness foreign exchange and or pension reserve assets for more productive policy objectives (Clark et al. 2013). Increasingly, this involves the pursuit of a “double bottom line” in which states seek to deploy SWF assets in a manner that is both profitable, and more broadly beneficial

to the national economy (Clark et al. 2013). Domestically, SWFs are often used as holding companies charged with imparting a commercial, market-disciplined orientation into semi-privatized state owned enterprises (SOEs), or as venture capital funds providing support to private firms. Internationally, they often purchase stakes in foreign partner firms as a globally-oriented strategy of asserting national development policy autonomy, with the result being a growth of “state-led global alliance capitalist” networks both within and cutting across multiple developed and developing economies (Haberly 2011). Most interestingly, the “double bottom-line” fund, and its associated state capitalist network sprawl, has increasingly spread beyond commodity exporters and developing countries, to larger developed countries with historically strong interventionist streaks. These have launched new “strategic” SWFs (e.g. France and Italy), and retooled existing entities (e.g. holding companies and pension funds) into SWF-like investors, as part of efforts to manage the progress and impacts of neoliberalization and globalization (see section 7).

5. Mapping “Earth Incorporated”

As described above, these Veblenian and Polanyian double-movements conditioning the institutionalization of contemporary financial marketization appear to be desynchronized, insofar as the drive to liquidity and efficiency shows signs of unraveling even while the political impulses towards neoliberalization and globalization continue to advance. However, both have, in their current configuration, conspired to produce a similar shift away from fragmented and arm’s-length corporate control, towards more centralized networks of long-term voice-based control. As we show in the next two sections, these tendencies have produced a concentrically organized global company network, consisting of a “global network core” of Anglo-American fund managers, ringed by a “state capitalist periphery” extending heterogeneously across non-Anglo American economies.

The methodology used here differs from previous studies of global corporate ownership, which have employed one of two approaches. The first is the construction of investor rankings by total assets controlled, which does not shed any direct light on network structure (Peetz and Murray 2012). The second is the classification of general topological features in networks of thousands of firms, linked by a myriad of weak as well as strong ties (Vitali et al. 2011). These have shed general light on global company network structure; however, the very massiveness of their scope, and lack of data filtering or reduction, renders the most important network features largely unintelligible. With both the contributions and shortcomings of these studies in mind, we employ a more targeted methodology, mapping the ultimate 5% control tree of the 205 public and private firms, worldwide, identified based on the Forbes Global 2000 list and Orbis to have more than \$50 billion in 2014 sales. In addition to reflecting the minimum reliable disclosure threshold, restricting our analysis to block holdings in major firms allows for a relatively unclouded view of key network features, and helps us to draw conclusions about the relational character of ties. With respect to the latter, the fact that concentrated stakes in very large firms are extremely difficult to sell quickly, implies a certain level of long-term commitment, and in all

likelihood managerial engagement. In addition to revealing the direct ownership of firms, our approach seeks to trace—through as many layers as necessary, until ultimate owners are reached—structures of control as defined by concentrated, 5% stakes. For each investor, we define the total sales of sample firms lying within this 5% control pyramid as an “economic footprint,” thus highlighting influence over the “real economy” rather than simply financial wealth. Ownership data is derived from a combination of SEC def-14A filings, company websites and reports, and Orbis searches, with data the most recent available as of June 2015.

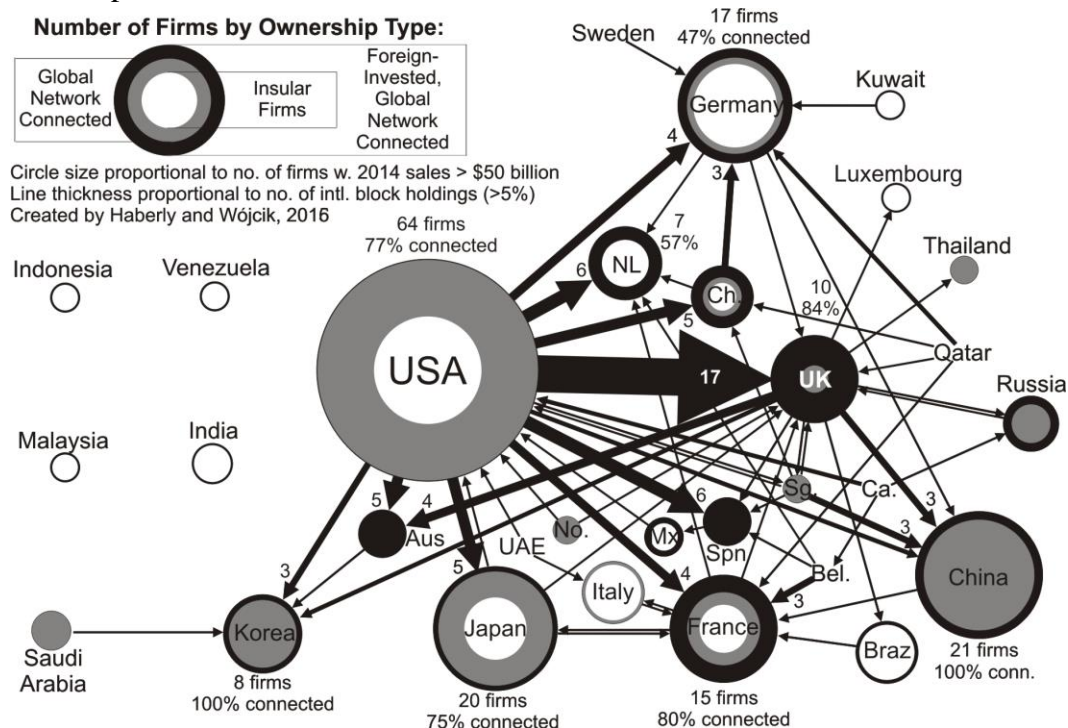


Figure 2. International Structure of the Global Company Network

Figure 2 shows the global company network’s structure at a nationally aggregated level. The extent of network integration is very high, with 74% (152) of 205 sample firms connected to the global company network (as defined by firms themselves, or any of their 5% ultimate block holders, being linked by 5% share blocks). Of these 74%, 32% (48) have a direct foreign block holder, with the remaining 68% connected to the global network via firms in their own home country. There is substantial international variation in network integration. Ironically, given the historical fame of its company network, Germany has the most disarticulated control structures of any major economy. Conversely, the US and UK—which have traditionally been bastions of fragmented and decentralized control—are tightly integrated both internally and internationally. The most tightly integrated major economies are South Korea and China, where 100% of sample firms are substantially owned by their respective governments, and thus linked to both one another and the global network. Also strongly integrated are the French and Japanese company networks, where state ownership is likewise influential. In term of international influence,

American investors are overwhelmingly dominant, holding 59 share blocks in foreign firms⁷, or more than four times the total (14) for second-ranked UK. In third place after the UK is Singapore, whose SWFs and other state-linked investors hold seven blocks in foreign firms, followed by Qatar and Belgium (5), Switzerland, Canada, and France (4), Japan and Germany (3), and Abu Dhabi, Brazil, and Norway (2).

This preliminary analysis supports the idea of a two-part, concentric global company network. This has a tightly integrated core that is centered, counterintuitively, on those Anglo-American economies historically seen to have the most liquid and decentralized corporate control arrangements. Meanwhile, comprising most of the network's remainder is a periphery of internationally and nationally-oriented state investors, within which a handful of small SWF-owning states play an outsized role. In the following sections we examine this network in more detail, looking first at the "global network core" before turning to the "state capitalist periphery."

6. The Global Network Core

Our results indicate that control of the world economy's commanding heights is much more concentrated than any study has revealed to date. The 20 most influential world investors by "economic footprint" (table 1) are direct and ultimate 5% block holders in 56% and 61% of sample firms respectively. 15 of these 20, moreover, are direct 5% block holders in one another, with the global company network thus having an exceedingly compact interconnected nucleus (figure 3). This nucleus, which we dub the "global network core," is nearly two orders of magnitude smaller than the 1000-member "strongly connected core" of the global control network identified by Vitali et al. (2011).

Seven of these 15 mutually-invested network core members are based in the United States. This American dominance stems directly from the tendency of passive fund management to produce concentrated patterns of control, with the two largest US passive managers, BlackRock and Vanguard, having vastly larger direct 5% control footprints than any other investors worldwide. The geography of this pattern reflects the paradoxical logic of the "Veblenian double movement" in financial market organization, wherein the drive towards market liquidity and efficiency ultimately breaks down under the weight of its own institutional contradictions. As noted by Jessop and Kumar (2014), the fact that US securities markets have traditionally been the world's most efficient—implying a corresponding paucity of opportunities for arbitrage—has encouraged an earlier and more pronounced shift by US than European fund managers to passive investment. Given the economies of scale of this strategy, the result has been a greater tendency towards fund management consolidation in the US. Indeed, contrary to the stereotype of dispersed ownership, our analysis shows that the US has one of the more centralized and incestuous control patterns of any advanced economy. 67% of US sample firms lie within BlackRock's ultimate control pyramid, in most cases via direct 5% shareholdings. Furthermore, all but two US firms for which Blackrock is a 5% shareholder also have Vanguard

⁷ Defined as both sample firms, and their ultimate 5% block holders.

as a 5% shareholder (and vice versa), with these two passive managers thus owning 10-15% of more than half of America's largest firms. Finally, BlackRock and Vanguard's ownership structures are also entangled with both one another, and that of the third largest US passive manager, State Street (figure 3)

Table 1. Top 20 world investors by “economic footprint” (ultimate 5% portfolio firm sales)

Investor	City	Type**	Direct Portfolio Sales (\$B)†	Ultimate Portfolio Sales (\$B)‡	Direct Sales as % Sample†	Ultimate Sales as % Sample‡	Direct Portfolio firms† (#)	Ultimate Portfolio Firms‡ (#)	Dir. Firms as % Sample†	Ult. Firms as % of Sample‡
<i>BlackRock Net</i>										
Norway Govt.	Oslo	Govt.	321	9728	1.5%	46.2%	2	93	1.0%	45.4%
BlackRock	NYC	Pass. FM	6312	9633	30.0%	45.8%	57	92	27.3%	44.9%
Vanguard	Phil.	Pass. FM	4278	9633	20.3%	45.8%	40	92	19.1%	44.9%
Wellington	Phil.	Act. FM	339	9633	1.6%	45.8%	4	92	1.9%	44.9%
PNC Financial	Pitt.	Bank	0	9633	0.0%	45.8%	0	92	0.0%	44.9%
<i>Canada Net.</i>										
Desmarais	Mont.	Family	0	2781	0.0%	13.2%	0	26	0.0%	12.4%
Can. Bk Net*	Toronto	Financial	121	2682	0.6%	12.7%	1	25	0.5%	12.0%
Capital Group	Los Ang	Act. FM	1448	2475	6.8%	11.8%	18	26	8.6%	12.7%
China Govt.	Beijing	Govt.	2378	2378	11.2%	11.3%	20	20	9.6%	9.8%
<i>State Str. Net.</i>										
State Street	Boston	Pass. FM	1325	1971	6.3%	9.4%	14	21	6.7%	12.7%
T. Rowe Price	Balti.	Act. FM	445	1971	2.1%	9.4%	5	21	2.4%	12.2%
<i>Japan Net.</i>										
Japan Govt.	Tokyo	Govt.	321	1932	1.5%	9.2%	3	22	1.4%	10.7%
JTSB*	Tokyo	Trust Bk	960	1716	4.6%	8.2%	12	20	5.7%	9.8%
SMFG*	Tokyo	Bank	254	1716	1.2%	8.2%	3	20	1.4%	9.8%
Resona	Tokyo	Bank	0	1716	0.0%	8.2%	0	20	0.0%	9.8%
JP Morgan	NYC	Bank	1001	1585	4.8%	7.5%	10	16	4.8%	7.8%
Qatar Govt.	Doha	Govt.	651	1311	3.1%	6.2%	5	11	2.4%	5.4%
MUFJ*	Tokyo	Bank	0	1150	0.0%	5.5%	8	13	3.8%	6.3%
<i>FMR Network</i>										
Johnsons	Boston	Family	746	948	3.5%	4.5%	7	9	3.3%	4.4%
Fidelity Inv.	Boston	Act. FM	746	948	3.5%	4.5%	7	9	3.3%	4.4%

*Canadian Bank Network, Japan Trustee Services Bank, Sumitomo Mitsui Financial Group, and Mitsubishi UFJ Financial

**Active versus passive fund manager (FM) defined based on predominant strategy by AUM.

†Firms in which investor is a direct 5% shareholder.

‡Firms lying within 5% ultimate control pyramid of investor.

Source: Company Financial Reports and Websites, SEC def14-A filings, Orbis

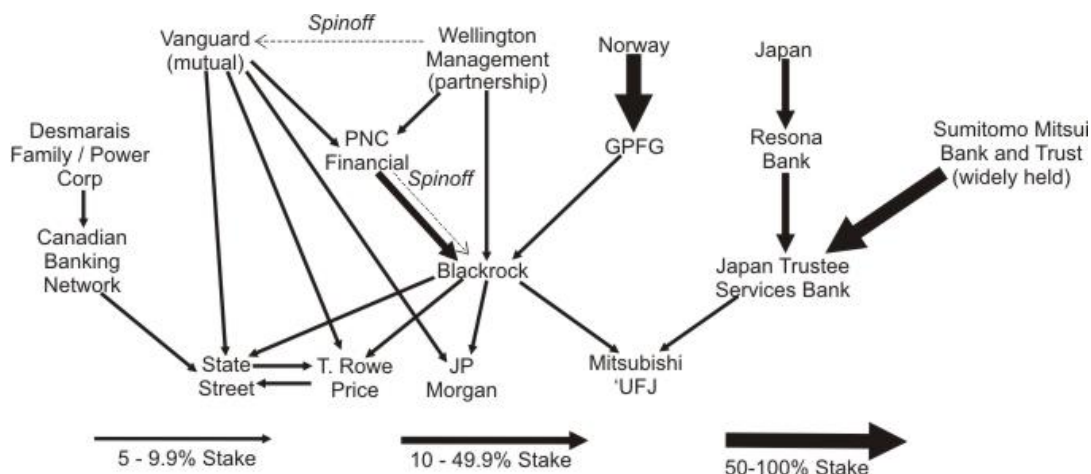


Figure 3. The Global Network Core (mutually-invested top-20 world investors)

Ultimate Shareholder Structures of
Firms with > \$50 bill. 2014 sales,
Created by Daniel Haberly and Dariusz Wojcik, 2016

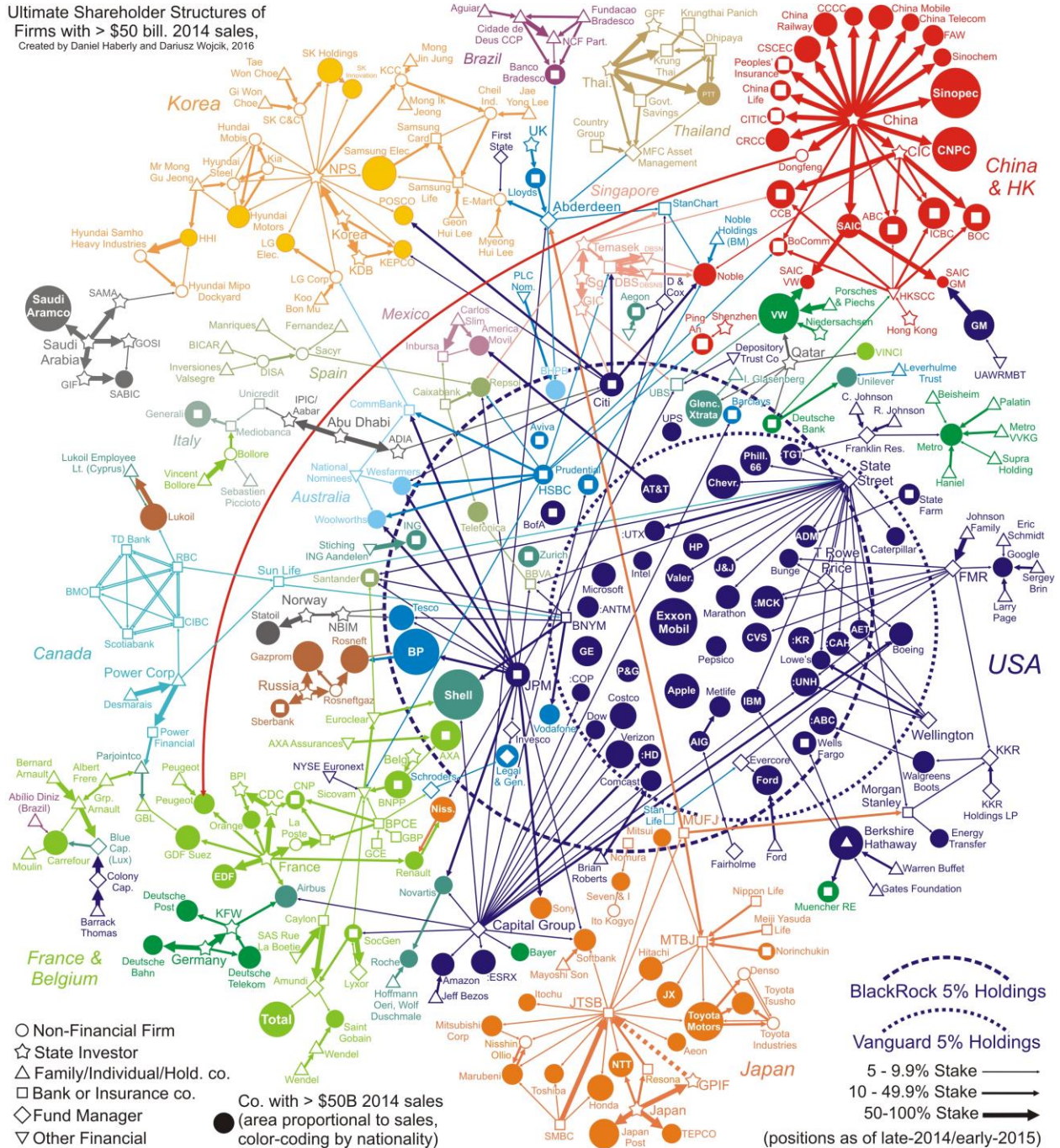


Figure 4. Global Company Network, late 2014 - early 2015

At the international level, the largest US passive manager, BlackRock, is by far the most influential actor in global network integration. As can be seen in table 1 and figure 4, BlackRock holds a direct 5% stake in nearly a third of sales-weighted sample firms worldwide, a proportion which rises to 45% for its ultimate 5% pyramid. Outside of the US, BlackRock's footprint is most concentrated in the UK, where 92% of sample firms lie within its 5% pyramid. Given that the UK has historically had the most liquid and efficient securities markets in Europe (indeed BlackRock's current shape resulted from its 2009 acquisition of Barclays Global Investors), this pattern is congruent with the Veblenian double movement theorized here. This model is also supported by the concentration of BlackRock's non-Anglo-American holdings in financial multinationals with large free floats and US listings or quotations⁸ (e.g. Deutsche Bank, AXA, UBS, BBVA, ING, Zurich Financial, Mitsubishi UFJ). The high domestic and international influence of these in-turn helps to enroll 29% of non-US and UK sample firms in BlackRock's ultimate control pyramid.

A crucial question is whether this centralization of control is leading to the type of long-term macro-economic outlook, on the part of "universal owners" (Hawley and Williams 2000), which would be expected given their internalization of what smaller investors would consider to be externalities. It is too early to definitely resolve this question; however, available evidence suggests that its answer is a tentative yes. The tendency towards increasing domestic and international shareholder activism among the largest US fund managers is unmistakable (Appel et al. 2016; Armitstead 2012). However, the nature of this activism is different from traditional Anglo-American activists such as hedge funds. In a 2015 letter to Fortune-500 CEOs, BlackRock's CEO scathingly repudiated the prevailing "short-termist" emphasis of activists on draining firms of cash. Rather, he endorsed a retain-and-reinvest governance model in which firms make "big, long-term bets that create jobs and keep an economy on top of the innovation curve" (Fink 2015). In early 2016, Fink sent a similar letter to the CEOs of the largest European firms (Landgraf 2016). Significantly, the largest US fund managers, including BlackRock and Vanguard, have distanced themselves from the proxy advisory firms that have traditionally helped hedge funds to mobilize shareholder support for buybacks and other "short-termist" measures. Ironically, whereas the formerly "passive" approaches of large fund managers to corporate governance would have entailed automatic support for such proposals, their newly "activist" orientation has increasingly involved the defense of firms from them (Charan and Colvin 2015; Coffee 2015; Craig 2013; Economist 2015a; Lublin and Grind 2013; Sawyer and Aquilla 2013).

How this tension between conventional and "patient" shareholder activism will play out in the US and elsewhere is unclear. In the most prominent direct clash between activist hedge funds and the big-three US passive fund managers, DuPont successfully defeated, with support from BlackRock, Vanguard, and State Street, a proxy advisor-backed activist hedge fund ballot, which aimed to replace the firm's board to pave the way for radical restructuring (Brownstein et

⁸ This underscores the key role of the New York capital market specifically in global company network formation. A comprehensive city-level analysis of this network is a clear direction for research extension.

al. 2015; Charan and Colvin 2015; Coffee 2015). However, just a few months after it fended off this attack, DuPont's own board proceeded to oust the firm's CEO, in order to pursue a merger with Dow, and subsequent breakup of the combined firm (Bunge 2015; Crooks 2015). It remains to be seen whether the first or second half of this episode is the more important bellwether.

7. The State Capitalist Periphery

Out of the 27% of sample firms which are linked to the global company network, but do not lie within BlackRock's 5% control pyramid, two thirds have a direct 5% state block holder. Consequently, the two-part classification of global company network structure into global network core, and state capitalist periphery, can be said to be more or less exhaustive (keeping in mind that this excludes the 26% of sample firms not linked to the global network). Figure 5 shows all ultimately state-invested portions of the global company network (excluding, for clarity, those only ultimately state-invested via BlackRock). This state capitalist presence is broadly dominated by SWFs and other state institutional investors—belonging, most importantly, to Qatar, Singapore, France, China, Japan and S. Korea—thus embodying the rise of the market-conforming, financial-return oriented state capitalist paradigm discussed in section 4.

Whereas the formation of the global network core reflects a Veblenian double-movement of market structural evolution, the state capitalist periphery has been shaped into its current form by politically-mediated Polanyian double-movements of marketization and societal-protection, surrounding the advance of neoliberalism and globalization. As noted in Haberly (2011; 2014), these double-movements operate at not only a national, but also a transnational level, with the latter epitomized by the role of the global financial crisis in driving an expansion of the “small state” SWF-centered networks in figure 5 (notably Singapore, Qatar, Abu Dhabi and Norway). On the one hand, the growth of these SWFs constitutes a proactive attempt by owning states to insulate themselves from overseas economic shocks in a way broadly congruent, rather than contradictory, with global neoliberal market logics. However, these funds have also proven to be important liquid shock absorbers for host economies, playing an early leading role in crisis recapitalizations of western banks and automotive firms. Directly catalyzing these politically sensitive investments was a complementarity between the desire of host states to attract foreign support for crisis-stricken firms, and the desire of investing states to both take advantage of steep share discounts, and build political capital with host states and developmental partner firms (Haberly 2011; 2014; Hatton and Pistor 2011; Yeung 2011). Many of these recapitalizations established durable relationships—notably with Citigroup, Unicredit, UBS, Barclays, Volkswagen, BlackRock (via bank asset sales), and, more recently, Deutsche Bank (figure 5)—which have blurred the boundary between “state capitalist periphery” and “global network core.”

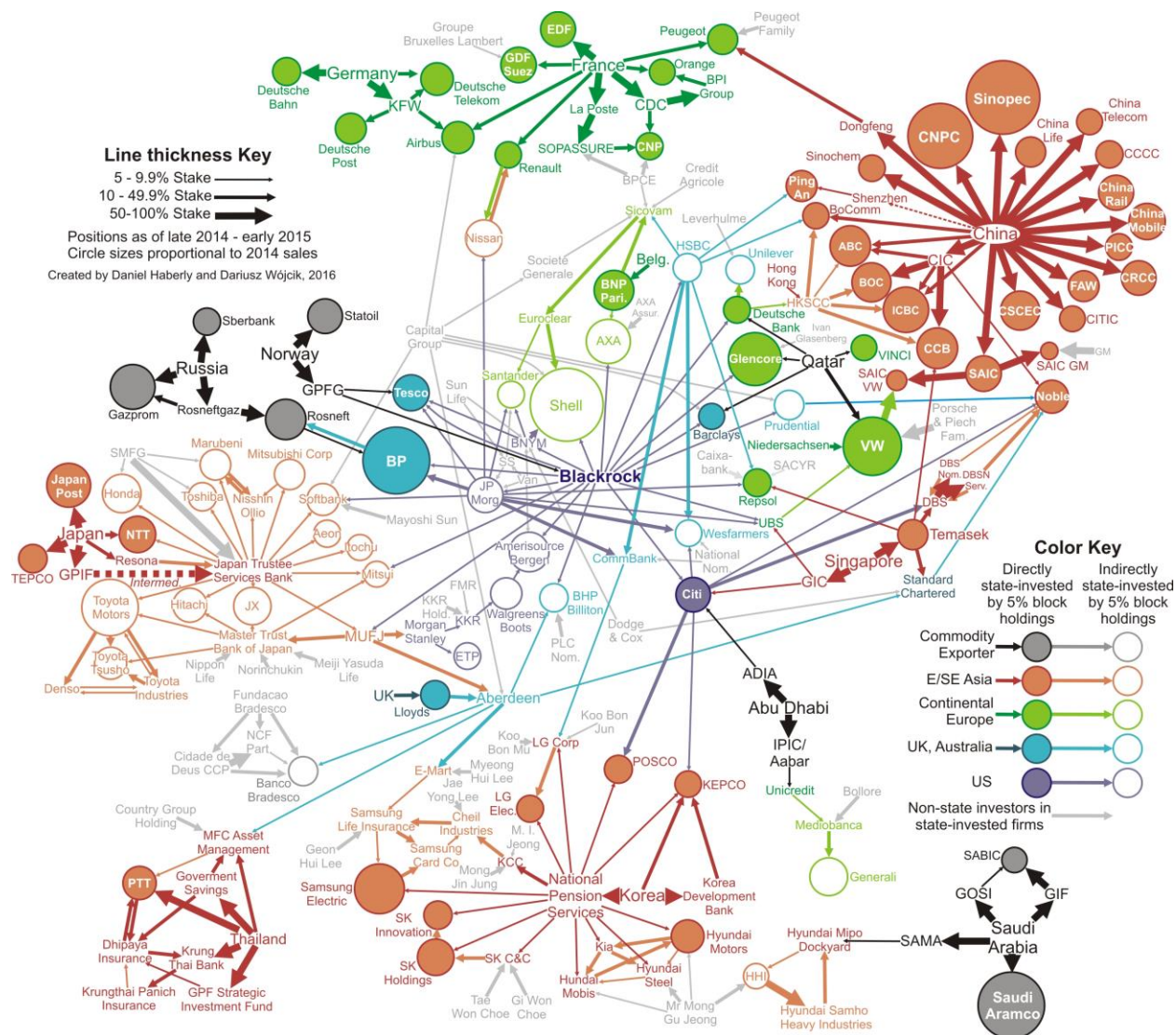


Figure 5. State Capital in the Global Company Network

Figures 2 and 5 also underscore the extent to which SWF-capitalism has emerged from more nationally-bounded double-movements. Intriguingly, state financial-investor-anchored national company networks appear to be an increasingly universal outcome of the attempts of traditionally *dirigiste* states to manage the advance of liberalization and globalization, even where these states have no tradition of widespread state ownership per se. Most striking, with respect to the latter, is the manner in which Japan and South Korea have stumbled into pervasive state capitalism as a component of the liberalizing “post-developmental state” (Wong 2004). In Polanyian dialectical fashion, this combines market-disciplinary restructuring of traditional conglomerates and business networks, with an expansion of the welfare state to absorb social support functions traditionally delegated to business. Increasingly, state pension funds have emerged as a focal point within not only the social-security, but also neoliberal disciplinary sides of this dialectic, via their role in promoting capital market development and corporate governance reform. In Japan, the Abe administration has sought to retool the \$1.1 trillion dollar

Government Pension Investment Fund (GPIF) into a battering ram to promote a more open regime of fiduciary-oriented asset management and corporate governance, as part of its “third arrow” structural reforms (Shinn, 2015). Although GPIF’s portfolio is hidden behind the custodial Japan Trustee Services Bank (JTSB) (figure 5), the most recent reports from GPIF and JTSB, from year-end 2013 to year-end 2014, indicate that GPIF accounts for more than half of JTSB’s custodial stock portfolio, and over 6% of the entire Japanese stock market. To date, Korea’s National Pension Service (NPS)—which very visibly dominates national equity markets (figure 5)—has not been enrolled as aggressively in policy, rather more passively promoting capital market and asset management development. However, its growth has raised hopes that it will be used to promote a similar corporate reform agenda, at the expense of South Korea’s family oligarchs (Jung and Mundy 2014).

In contrast to Japan and South Korea, France and China both have longstanding traditions of widespread state ownership. As such, they have converged on a pervasive blurring of the boundary between public and private sectors from the opposite direction of partial and or simulated SOE privatizations, wherein the state imparts a commercial/global orientation into firms while keeping them under its protective umbrella (Schmidt 2003; Walter and Howie 2011). In both states, various permutations of this Polanyian balancing act have increasingly been delegated to SWFs and SWF-like investors. In China, as can be seen in figure 5, the largest SWF (CIC) is mostly a national bank holding company, which has simultaneously served as a conduit for repeated preemptive bailouts—averting potentially severe crises stemming from ineffective bank regulation—and been charged with imparting a commercial orientation into lenders in conjunction with partial privatizations (Walter and Howie 2011). These recapitalizations have been conducted using dollar forex reserves, thus making CIC, in conjunction with its overseas asset portfolio (e.g. Morgan Stanley, Noble), a direct link between China’s international financial sovereignty and domestic financial security. Meanwhile, in France, an even more pervasive “SWFification” of SOE governance has unfolded via the retooling of the flagship holding company APE (“France” in figure 5) along institutional investor lines, with funds from partial SOE divestments being reinvested in private-sector firms (APE 2013). These investments have not only been made by APE (e.g. in Peugeot), but also a new SWF (FSI) and investment bank (BPI) (APE 2013; Levy 2011). Crucially, a financial return orientation allows these investors to navigate the “distinction between government financial intervention and straightforward state aid” (APE 2013, p. 26) within market disciplinary EU regulations, thus allowing them to support the global expansion of firms, and protect them from bankruptcy or foreign takeovers.

Due to the positive-sum nature of network integration, national state capitalist networks contribute to global company network consolidation insofar as they are inwardly-invested by the global network core. However, they have also become outwardly internationalized, with the state’s role as an investor creating a non-territorial basis for not only network cohesion, but also extension via equity-reinforced alliances with foreign firms. As noted in Haberly (2011), this state-led global alliance capitalism is a characteristic compromise within industries under tension

between the pressure for global integration and consolidation, and the desire of multiple governments to assert sovereignty over a sector seen as strategically important. This tension is notably reflected in figure 5 in the minority interlocks between BP and Russian state-controlled Rosneft, and Nissan and French state-controlled Renault, as well as the 2014 Sino-French state co-rescue (via Dongfeng and APE) of family-owned Peugeot.

8. Conclusion: The Future of the Global Company Network

Notwithstanding the political inertia exhibited by neoliberalism, recent years have witnessed an evaporation of the air of inevitability once surrounding the broader advance of global “market rule” (Peck et al. 2012; Rodrik 2011). The consolidation of the global company network can in many respects be seen as a microcosm of this uncertainty and instability. Seen from one perspective, this network is a culminating feature of global financial integration; however, at a deeper level, it appears to be both emerging out of and contributing to an unraveling of the familiar “market rule” trajectory of integration under the weight of its own contradictions. Indeed, as this network has formed, it has become questionable whether global finance can still be characterized, fundamentally, as a marketplace. On the one hand, the advance of neoliberalism and globalization is increasingly embedded in an expansion of states themselves into markets as investors. In this respect, the paradoxically dirigiste character of “laissez faire” noted by Polanyi has become ever-more glaring. On the other hand, the basic fabric of the core capital markets in global finance has begun to fray with the rise of an overhead-minimizing strategy of passive fund management. As ever-increasing funds have come to flow through a very small group of passive funds, these have come to comprise a de facto permanent governing board for a growing share of major global companies.

There is some reason to believe that this architecture is fundamentally unstable, and may be forced to undergo unpredictable transformations almost as quickly as it emerges. Two tensions stand out as particularly prominent. Firstly, although the exhaustion of the “drive to liquidity and efficiency” can be primarily understood as a bottom-up “Veblenian” phenomenon, the centralized network arrangements resulting from it are increasingly at odds with the Polanyian market disciplinary political impulse. Specifically, ever-larger fund managers are increasingly trapped in a paradox between the need to play an active corporate governance role commensurate with their size, and the potential abyss of anti-trust action. In this respect, managers such as BlackRock and Vanguard are at risk of following in the footsteps of JP Morgan’s “Money Trust.” This conflict may not come to a head given the paradoxical dependence of passive funds on a surrounding ecosystem of market fluidity and speculation (although Morgan, notably, had a similar ecological dependence, see De Long 1992). However, in the US and UK in particular, an unabated movement towards de facto mega-trusts would eventually force the issue (see Azar et al. 2016 and Economist 2015b). The result would be a pressure for either a breakup of these networks, or an enrollment of their key intermediaries into a role as quasi-public financial utilities. The first scenario would see the Polanyian market-disciplinary impulse assert itself over the Veblenian double-movement, whereas the second

would see the latter, in essence, coopted by the Polanyian countermovement. This would entail the emergence of what Streeck (2010) describes, in Polanyian terms, as an “organized” company network embedded in a matrix of compulsory societal obligations.

Even if these looming anti-trust issues can be resolved, however, enrolling such massive actors into public service would be likely to intensify the second tension within the global company network, namely the tendency for national Polanyian countermovements to precipitate international conflict. In this respect, the experience of Google—whose status as a US para-public monopoly (e.g. via security state enrollment) has rendered it increasingly unwelcome abroad—appears to be instructive. What this illustrates more than anything is the extent to which globalization’s stability rests on the thinly veiled fiction of market depoliticization. In the absence of this fiction, private competitive struggles tend to devolve into public political struggles, which in turn threaten the basic machinery of cross-border market integration. The contemporary internationalization of state capitalism is a particularly striking development in this respect. For the time being, this appears to have a stabilizing influence on the world economy, as it helps to cement tacit or explicit forms of state-state and state-firm cooperation, which tame the vicissitudes of market fluctuations. In the long-run, however, the replacement of the ostensibly depoliticized hand of the market with the visible hand of transnational state partnerships is likely to render global finance sensitive to the vicissitudes of power politics. It remains to be seen whether the 21st century world economy will prove more resilient to such tensions than the early 20th century world economy.

Looking forward to future research on the geographically “variegated” institutional development of global capitalism (Peck and Theodore 2007), our findings underscore the need to complement politically-oriented analysis, with data-grounded analysis of emergent evolutionary change at the level of agent populations. We have primarily examined this evolution from the standpoint of financial investors and intermediaries. However, this ultimately needs to be coupled to analyses of competitive selection processes acting on firms in the real economy (see Haberly 2014). In this context, Veblen’s focus on the institutionally-mediated tension between financial pecuniary rationality, and the organizational logic of industrial society—updated for the post-industrial age—is likely to prove even more fruitful conceptually. With respect to the geographic ontology of such work, the Global Financial Network (GFN) framework of Coe et al. (2014) is a potentially useful integrating template for “forensic” empirical investigations of global financial institutional subsystems. However, there is also a need to adapt the “glocalizing” frame of GFN to the apparent Polanyian dialectical resurgence of the nation-state, while avoiding the pitfalls of either crude analytical nationalism or paralyzing ontological complexity. Finally, a notable omission from our analysis, which can be incorporated into future work, are the systemic dynamics of capital accumulation. This is particularly significant in relation to “financialization,” which may encompass a third, accumulation-driven logic—conditioned by the long-term cyclical saturation of investment opportunities (see Arrighi and Silver 2001)—beyond the two institutional logics postulated here. World Systems theorists (Arrighi 1994), notably, have provided rich analyses of this understanding of financialization in

relation to the interplay between world economy-making and state-making, and the Polanyian double movement. A geographically nuanced engagement with this work is a promising developmental path for the institutionalist model outlined here, and the GFN project.

Acknowledgements

Earlier versions of this paper were presented by Daniel Haberly under the same title for the Human Geography Speaker series in the Department of Geographical Sciences at the University of Bristol, on Oct. 20 2015, the RGS-IBG Annual International Conference in London, on Sept. 1 2016, and the Centre for Urban and Regional Development Studies External Seminar Series at Newcastle University, on Oct. 6 2016. We would like to thank Adam Dixon, Jane Pollard, Ben Fine, and three anonymous reviewers for their helpful comments. Any errors or omissions are solely the responsibility of the authors.

This work was supported by the Leverhulme Trust under Grant RGS-359; and Hong Kong Research Grants Council Grant T31-717/12/R received by Dariusz Wójcik.

References

- Agence des Participations de L'État (APE) 2013. The French state as a shareholder. APE 2013 report. Available online: http://www.economie.gouv.fr/files/files/directions_services/agence-participations-etat/Documents/Rapports-de-l-Etat-actionnaire/2013/Overview_2013.pdf.
- Aizenmann, J. 2007. Large hoarding of international reserves and the emerging global economic architecture. NBER Working Paper No. 13277. Available online: <http://www.nber.org/papers/w13277>.
- Aoki, M., Jackson, G., and Miyajima, H. 2007. *Corporate governance in Japan: Institutional change and organizational diversity*. Oxford: Oxford University Press.
- Appel, I., Gormley, T. A., Keim, D. B. 2016. Passive investors, not passive owners. *Journal of Financial Economics* 121:111-141.
- Armitstead, L. 2012. BlackRock's Michelle Edkins behind wave of shareholder revolts. *The Telegraph*, May 4. Available online: <http://www.telegraph.co.uk/finance/newsbysector/banksandfinance/9247055/BlackRocks-Michelle-Edkins-behind-wave-of-shareholder-revolts.html>.
- Arrighi, G. 1994. *The Long 20th Century: Money, Power, and the Origins of our Times*. New York: Verso.
- Arrighi, G., Silver, B. J. 2001. Capitalism and world (dis)order. *Review of International Studies* 27:257-279.
- Azar, J., Schmalz, M. C., and Tecu, I. 2016. Anti-competitive effects of common ownership. Ross School of Business paper No. 1235. Available online: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2427345.

- Berle, A., and Means, G. 1999. *The modern corporation and private property* (2nd edition). Piscataway: Transaction Publishers.
- BlackRock 2015. BlackRock: Worldwide leader in asset and risk management. White Paper. Available online: <http://www.blackrock.com/corporate/en-gb/literature/whitepaper/viewpoint-blackrock-worldwide-leader-in-asset-management.pdf>.
- Brenner, N., Peck, J., and Theodore, N. 2010. Variegated neoliberalism: Geographies, modalities, pathways. *Global Networks* 10:182-222.
- Brownstein, A. R., Katz, Rosenblum, S. A., Katz, D. A., Niles, S. V. 2015. Some lessons from DuPont-Trian. *Harvard Law School Forum on Corporate Governance and Financial Regulation*, May 18. Available online: <https://corpgov.law.harvard.edu/2015/05/18/winning-a-proxy-fight-lessons-from-the-dupont-trian-vote/>.
- Bunge, J. 2015. DuPont CEO Ellen Kullman steps down. *Wall Street Journal*, Oct. 5. Available online: <http://www.wsj.com/articles/dupont-ceo-kullman-steps-down-1444077244>.
- Charan, R., and Colvin, G. 2015. Why Vanguard and BlackRock could beat Peltz and Icahn. *Fortune*, June 11. Available online: <http://fortune.com/2015/06/11/vanguard-blackrock-could-beat-peltz-icahn/>.
- Clark, G. L., Dixon, A, and Monk, A. H. B. 2013. *Sovereign wealth funds: Legitimacy, governance, and global power*. Princeton: Princeton University Press.
- Clark, G. L., and Monk, A. H. B. 2010. Government of Singapore Investment Corporation (GIC): Insurer of last resort and bulwark of nation-state legitimacy. *Pacific Review* 23:429-451.
- Clark, G. L., and Wójcik, D. 2007. *The geography of finance: Corporate governance in the global marketplace*. Oxford: Oxford University Press.
- Coe, N. M., Lai, K. P. Y., and Wójcik, D. 2014. Integrating finance into global production networks. *Regional Studies*, 48:761-777.
- Coffee, J. C. 2001. The rise of dispersed ownership: The roles of law and state in the separation of ownership and control. *The Yale Law Journal* 111:1-82.
- Coffee, J. C. 2015. Lessons of DuPont: Corporate governance for dummies. *New York Law Journal*, 28 May. Available online: <http://www.newyorklawjournal.com/id=1202727540430/Lessons-of-DuPont-Corporate-Governance-for-Dummies?slreturn=20150824121901>.
- Craig, S. 2013. The giant of shareholders, quietly stirring. *The New York Times*, May 18. Available online: http://www.nytimes.com/2013/05/19/business/blackrock-a-shareholding-giant-is-quietly-stirring.html?_r=0.
- Crooks, E. 2015. Dow and DuPont aim to pre-empt activists with megadeal. *Financial Times*, Dec. 9. Available online: <https://next.ft.com/content/7f43a318-9e51-11e5-8ce1-f6219b685d74>.
- Crotty, J. 2009. Structural causes of the global financial crisis: A critical assessment of the 'New Financial Architecture.' *Cambridge Journal of Economics* 33:563-580.

- Currier, C. 2007. Success may be downfall of perfectly good fund. *Bloomberg*, May 15. Available online: <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aSw20LBKZpGs>.
- De Long, J. B. 1992. JP Morgan and his Money Trust. *Wilson Quarterly* 16:16-30.
- Dixon, A. 2011. Variegated capitalism and the geography of finance: Towards a common agenda. *Progress in Human Geography* 35:193-210.
- Dixon, A., and Monk, A. H. B. 2014. Frontier finance. *Annals of the Association of American Geographers* 104:852-868.
- Drucker, P. F. 1976. *The unseen revolution: How pension fund socialism came to America*. Oxford: Butterworth-Heinemann.
- Economist 2012. Rival versions of capitalism: The endangered public corporation. *The Economist*, May 19. Available online: <http://www.economist.com/node/21555562>.
- 2013a. The new American capitalism: Rise of the distorporation. *The Economist*, Oct. 26. Available online: <http://www.economist.com/news/briefing/21588379-mutation-way-companies-are-financed-and-managed-will-change-distribution>.
- 2013b. The rise of BlackRock. *Economist*, Dec. 7. Available online: <http://www.economist.com/news/leaders/21591174-25-years-blackrock-has-become-worlds-biggest-investor-its-dominance-problem>.
- 2014. Fund management: Will invest for food. *Economist*, May 3. Available online: <http://www.economist.com/news/briefing/21601500-books-and-music-investment-industry-being-squeezed-will-invest-food>.
- 2015a. Activist funds: An investor calls. *Economist*, 7 Feb. Available online: <http://www.economist.com/news/briefing/21642175-sometimes-ill-mannered-speculative-and-wrong-activists-are-rampant-they-will-change-american>.
- 2015b. Mutual funds and airline competition: Who really owns the skies? *Economist*, 11 Jun. Available online: <http://www.economist.com/blogs/freeexchange/2015/06/mutual-funds-and-airline-competition>.
- Epstein, G. A. 2005. Introduction: Financialization and the world economy. In G. Epstein (ed.) *Financialization and the world economy*. Cheltenham: Edward Elgar.
- Essletzbichler, J., and Rigby, D. L. 2007. Exploring evolutionary economic geographies. *Journal of Economic Geography* 7:549-571.
- Ferri, P., Minsky, H. P. 1992. Market processes and thwarting systems. *Structural Change and Economic Dynamics* 3:79-91.
- Fink, L. (2015) Our gambling culture. Letter to US CEOs, reprinted in *Perspectives on the Long Term: Building a Stronger Foundation for Tomorrow*. Canada Pension Investment Board and McKinsey and Company joint publication. Available online: <http://viewer.zmags.com/publication/a1b195ee#/a1b195ee/4>.
- Grind, K., and Lublin, J. S. 2015. Vanguard and BlackRock plan to get more assertive with their investments. *The Wall Street Journal*, March 4. Available online:

<http://www.wsj.com/articles/vanguard-and-blackrock-plan-to-get-more-assertive-with-their-investments-1425445200>

- Grossman, S. J., and Stiglitz, J. E. 1980. On the impossibility of informationally efficient markets. *The American Economic Review* 70:393-408
- Haberly, D. 2011. Strategic sovereign wealth fund investment and the new alliance capitalism: A Network Mapping Investigation. *Environment and Planning A* 43:1833-1852.
- . 2014. White knights from the gulf: Sovereign wealth fund investment and the evolution of German industrial finance. *Economic Geography* 90:293-320.
- Hall, P. A., and Soskice, D. 2001. *Varieties of capitalism: The institutional foundations of comparative advantage*. Oxford: Oxford University Press.
- Hall, P. A., and Thelen, K. 2009. Institutional change in varieties of capitalism. *Socio-Economic Review* 7:7-34.
- Hatton, K., and Pistor, K. 2011. Maximizing autonomy in the shadow of great powers: The political economy of sovereign wealth fund investment. *Columbia Journal of Transnational Law*. 50:1.
- Hawley, J. P., and Williams, A. T. 2000. *The rise of fiduciary capitalism: How institutional investors can make corporate America more democratic*. Philadelphia: University of Pennsylvania Press.
- Henry, J. S. 2012. The price of offshore revisited: New estimates for missing global private wealth, income, inequality, and lost taxes. Tax Justice Network Research Report. Available online: http://www.taxjustice.net/cms/upload/pdf/Price_of_Offshore_Revisited_120722.pdf.
- Hodgson, G. M. 2008. How Veblen generalized Darwinism. *Journal of Economic Issues* 42: 399-405.
- Hoepner, M., and Krempel, L. 2004. The politics of the German company network. *Competition & Change* 8:339-356.
- Jensen, M. C., and Meckling, W. H. 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3:305-360.
- Jessop, S., and Kumar, N. 2014. Passive funds an active threat for Europe's fund managers. *Reuters*, Aug. 31. Available online: <http://uk.reuters.com/article/2014/08/31/uk-investment-funds-passive-insight-idUKKBN0GV0F020140831>.
- Krippner, G. R. 2005. The financialization of the American economy. *Socio-Economic Review* 3:173-208.
- Konings, M. 2015. Governing the system: Risk, finance, and neoliberal reason. *European Journal of International Relations* doi: 10.1177/1354066115593393.
- Landgraf, R. 2016. A wake-up call to Europe's CEOs. *Handelsblatt*, Feb. 4. Available online: <https://global.handelsblatt.com/edition/361/ressort/finance/article/a-wake-up-call-to-europe>.
- La Porta, R., Lopez-de-Silanes, F., and Schliefer, A., 1999. Corporate ownership around the world. *The Journal of Finance* 74:471-517.
- Lash, S., and Urry, J. 1987. *The end of organized capitalism*. Madison: University of Wisconsin Press.

- Levy, J. D. 2011. The return of the state? French economic policy under Nicholas Sarkozy. Working paper. Available online: http://www.euce.org/eusa/2011/papers/5e_levy.pdf.
- Lim, K. F. 2010. On China's growing geo-economic influence and the evolution of variegated capitalism. *Geoforum*, 41(5), 677-688.
- Lo, A. W. 2004. The adaptive market hypothesis. *Journal of Portfolio Management* 30:15-29.
- Lublin, J. S., and Grind, K. 2013. For proxy advisors, influence wanes. *The Wall Street Journal*, May 22. Available online: www.wsj.com/articles/SB10001424127887323336104578499554143793198.
- Malkiel, B. G. 2003. The efficient market hypothesis and its critics. *Journal of Economic Perspectives* 17:59-82.
- . 2005. Reflections on the efficient market hypothesis: 30 years later. *The Financial Review* 40:1-9.
- . 2013. Asset management fees and the growth of finance. *Journal of Economic Perspectives* 27:97-108.
- McNabb, W. 2015. Letter sent by F. William McNabb III, Vanguard's Chairman and CEO, to the independent leaders of the boards of directors of the Vanguard funds' largest portfolio holdings of the boards of directors of the Vanguard funds' largest portfolio holdings. Available online: <http://conferences.law.stanford.edu/directorscollege2015/wp-content/uploads/sites/35/2015/06/Breakout-Shareholder-Engagement.pdf>.
- Oxfam 2014. Working for the few: Political capture and economic inequality. Briefing Paper 178. Available online: <http://www.ipu.org/splz-e/unga14/oxfam.pdf>
- Peck, J., and Theodore, N. 2007. Variegated capitalism. *Progress in Human Geography* 31:731-772.
- Peck, J., Theodore, N., and Brenner, N. 2012. Neoliberalism resurgent? Market rule after the great recession. *The South Atlantic Quarterly* 111:265-288.
- Peetz, D., and Murray, G. 2012. The financialization of global corporate ownership. In G. Murray and J. Scott (eds.), *Financial elites and transnational business: Who rules the world?* Cheltenham: Edward Elgar Publishing.
- Philips, M. 2013. How the robots lost: High frequency trading's rise and fall. *Bloomberg*, June 6. Available online: <http://www.bloomberg.com/bw/articles/2013-06-06/how-the-robots-lost-high-frequency-tradings-rise-and-fall#p1>.
- Piketty, T. 2014. *Capital in the 21st century*. Cambridge: Harvard University Press.
- Polanyi, K. 2001. *The great transformation: The political and economic origins of our times* (2nd edition). Boston: Beacon Press.
- Rodrik, D. 2011. *The globalization paradox*. Oxford: Oxford University Press.
- Sawyer, M., and Aquila, F. 2013. ISS's declining influence in shareholder votes. NYSE Governance Series Corporate Board Member June Newsletter. Available online: <https://www.sullcrom.com/Publications-Sawyer-Aquila-Author-Article-ISS-Declining-Influence-Shareholder-Votes-NYSE-Governance-Series-Corporate-Board-Member-June-Newsletter-2013>.

- Schliefer, A., and Vishny, R. W. 1997. A survey of corporate governance. *Journal of Finance* 52:737-783.
- Schmidt, V. A. 2003. French capitalism transformed, yet still a third variety of capitalism. *Economy and Society* 32:526-554.
- Shinn, J. 2015. Big asset shift of Japan's GPIF is secret weapon of Abenomics. *Institutional Investor*, April 22. Available online: <http://www.institutionalinvestor.com/article/3447097/investors-pensions/big-asset-shift-of-japans-gpif-is-secret-weapon-of-abenomics.html?ArticleId=3447097&p=1#.VdB63fIViko>
- Streeck, W. 2010. *Re-forming capitalism: Institutional change in Germany political economy*. Oxford: Oxford University Press.
- Stulz, R. M. 2005. Presidential address: The limits of financial globalization. *The Journal of Finance* 60:1595-1639.
- Veblen, T. 1898. Why is economics not an evolutionary science? *Quarterly Journal of Economics* 12:373-397.
- . 1904. *The theory of business enterprise*. New York: Charles Scribner's Sons.
- . 1923. *Absentee ownership and business enterprise in recent times: The case of America*. New York: B. W. Huebsch.
- Vitali, S., Glattfelder, J. B., and Battison, S. 2011. The network of global corporate control. *PLOS One* DOI: 10.1371/journal.pone.0025995.
- Walter, C. E., and Howie, F. J. T. 2011. *Red capitalism: The fragile financial foundations of China's extraordinary rise*. Singapore: John Wiley and Sons.
- Wong, J. 2004. The adaptive developmental state in East Asia. *Journal of East Asian Studies* 4:345-362.
- Wray, L. R. 2011. Minsky's money manager capitalism and the global financial crisis. *International Journal of Political Economy* 40:5-20.
- Yeung, H. W. 2011. From national development to economic diplomacy? Governing Singapore's sovereign wealth funds. *Pacific Review* 24:625-652.
- Zucman, G. 2015. *The hidden wealth of nations*. Chicago: University of Chicago Press.